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10/520,860	01/11/2005	Ingo Relke	3081.91US01	4792

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PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A.
4800 IDS CENTER
80 SOUTH 8TH STREET
MINNEAPOLIS, MN 55402-2100

EXAMINER

KOVAL, MELISSA J

ART UNIT	PAPER NUMBER
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2851

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

514

Office Action Summary	Application No. 10/520,860	Applicant(s) RELKE ET AL.	
	Examiner Melissa J. Koval	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-101 is/are pending in the application.
 4a) Of the above claim(s) 52,53,63-76,94-96 and 98-101 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 41,59 and 62 is/are rejected.
 7) ☒ Claim(s) 42-49,50,51,54-57,60 and 61 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 11 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/11/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 41-51, 54-62, 77-93 and 97 in the reply filed on March 23, 2007 is acknowledged. The traversal is on the ground(s) that the search for all claims is not burdensome to the examiner. This is not found persuasive because stereoscopic and autostereoscopic devices constitute a broad search in many arts such as projection systems, optical systems and elements, television, optics: motion pictures and others. Holographic devices constitute an overlapping but different search in a variety of areas.

The requirement is still deemed proper and is therefore made FINAL.

Claims 52-53, 63-76, 94-96, and 98-101 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species/sub-species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 23, 2007. Claims 77 through 93 and 97 are further withdrawn by the Examiner due to the presence of the holographic screen in the embodiments claimed therein. The applicant has not addressed claims 98 through 101, however the Examiner has determined that they are drawn to another species of autostereoscopic projection.

Specification

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the

Art Unit: 2851

abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it exceeds 150 words and begins with the phrase "This invention relates to". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 41, 59 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Kleinberger et al. U.S. Patent 7,190,518 B1.

The teaching of Kleinberger et al. show many embodiments. See Figure 8. Claim 41 sets forth: "An autostereoscopic-projection arrangement, comprising:
a first projector (CRT display 10),
and a first filter array having a multitude of filter elements (polarized filter 90, orientation A), in which the projector projects bits of partial information from views of a scene or object onto a projection screen (See layers 130, 140, 150 and 160 receiving bits of partial information from birefringent layer 190 that comprises individual switchable elements.), where the bits of partial information are rendered on image

Art Unit: 2851

rendering elements and, having passed the filter array, are made visible to an observer, and in which the image rendering elements correspond with correlated filter elements, as regards the propagation direction of the bits of partial information, in such a way that the observer will see predominantly bits of partial information from a first selection of views with a first eye and predominantly bits of partial information from a second selection of views with a second eye, so that the observer perceives a spatial impression (See column 28, lines 64 through 67, column 29 in its entirety, and column 28, lines 1 through 39)."

With respect to claims 59 and 62, see controller 80 and sensor 85 in view of the teachings specified above.

Also see the embodiment of Figure 9, wherein a translucent screen is shown.

Allowable Subject Matter

Claims 42-49, 50, 51, 54-57, 60 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither shows nor suggests all of the elements of claim 42, in combination, and particularly:

"the second filter array arranged in front of the projection screen defines propagation directions for the light radiated by the projection screen toward the observer, in which any individual image rendering element corresponds with several allocated wavelength filters of the filter array, or one wavelength filter of the filter array corresponds with

several allocated image rendering elements, in such a way that a straight line connecting a first centroid of the cross-section area of a visible portion of the image rendering element and a second centroid of the cross-section area of a visible portion of the wavelength filter represents one propagation direction, so that, from every viewing position, the observer will see predominantly bits of partial information of a first selection of views with the first eye, and predominantly bits of partial information of a second selection of views with the second eye, so that the observer perceives a spatial impression from a multitude of viewing positions.”

Claim 55 and 58 would be allowable for the same reasons as claim 42.

Claims 50 and 54 would be allowable for similar reasons applied to the “first filter array”.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hobbs U.S. Patent 6,088,505 teaches a holographic patterning method and tool for production environments.

Christie U.S. Patent 6,593,957 teaches multiple viewer autostereoscopic display systems.

Street U.S. patent 5,712,732 teaches autostereoscopic image display adjustable for observer location and distance.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

Art Unit: 2851

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melissa Jan Koval
Primary Examiner
AU 2851
MJK



MELISSA JAN KOVAL
PRIMARY EXAMINER